AMENDMENTS TO THE CLAIMS

1.   (CURRENTLY AMENDED) An apparatus comprising:

a memory;

a first circuit configured to (i) copy a plurality of first reference samples of a first reference image from said memory, said first reference samples being proximate a first offset from a first corner of said first reference image and (ii) generate a first motion vector corresponding to a first current block of a current image by searching among said first reference samples; and

a second circuit configured to (i) copy a plurality of second reference samples of said first reference image from said memory, said second reference samples being proximate a second offset from said first corner of said first reference image, said second offset being different than said first offset and (ii) generate a second motion vector corresponding to said first current block by searching among said second reference samples, wherein (i) said first offset comprises a small offset generated from a still region of said current image and (ii) said second offset comprises a large offset generated from a moving region of said current image.

2.   (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said first circuit comprises a search memory (i)

having a read port and a write port, said write port being separate from said read port and (ii) configured to store said first reference samples copied from said memory.

3. (CANCELED)

4. (PREVIOUSLY PRESENTED) The apparatus according to claim 2, wherein said first circuit further comprises a read control circuit configured to generate a first read address to read from said memory.

5. (ORIGINAL) The apparatus according to claim 4, wherein said first circuit further comprises a write control circuit configured to generate a write address to write to said search memory.

6. (PREVIOUSLY PRESENTED) The apparatus according to claim 5, wherein said first circuit further comprises an internal read control circuit configured to generate a second read address to read from said search memory.

7. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said first circuit is further configured to (i) copy a plurality of third reference samples of said first reference

image from said memory and (ii) generate a third motion vector corresponding to a second current block of said current image by searching among said third reference samples and at least a portion of said first reference samples.

8.   (CANCELED)

9.   (CURRENTLY AMENDED) The apparatus according to claim 7, wherein ~~said~~ said third reference samples are spatially adjoining said first reference samples.

10.   (PREVIOUSLY PRESENTED) The apparatus according to claim 1, further comprising:

a third circuit configured to (i) copy a plurality of third reference samples of a second reference image from said memory, said third reference samples having a third offset from a second corner of a second reference image and (ii) generate a third motion vector corresponding to said first current block by searching among said third reference samples.

11.   (CURRENTLY AMENDED) A method for motion estimation, comprising the steps of:

(A)   copying a plurality of first reference samples of a first reference image from a memory to a first circuit, said first

5   reference samples having a first offset from a first corner of said

first reference image;

(B)   generating a first motion vector corresponding to a

first current block of a current image by searching among said

first reference samples using said first circuit;

10   (C)   copying a plurality of second reference samples of

said first reference image from said memory to a second circuit,

said second reference samples being proximate a second offset from

said first corner of said first reference image, said second offset

being different than said first offset; and

15   (D)   generating a second motion vector corresponding to

said first current block by searching among said second reference

samples using said second circuit, wherein (i) said first offset

comprises a small offset generated from a still region of said

current image and (ii) said second offset comprises a large offset

20   generated from a moving region of said current image.

12.   (CANCELED)

13.   (PREVIOUSLY PRESENTED) The method according to claim

19, wherein said second current block adjoins said first current

block in said current image.

14. (PREVIOUSLY PRESENTED) The method according to claim 13, wherein said third references samples adjoin said first reference samples in said first reference image.

15. (CURRENTLY AMENDED) The method according to claim 19, wherein the steps of ~~(A)~~ generating said first motion vector and ~~(B)~~ copying said third reference samples are performed substantially simultaneously.

16. (CURRENTLY AMENDED) The method according to claim 19, further comprising the ~~step~~ steps of:

overwriting some of said first reference samples with a plurality of fourth reference samples copied from said memory; and

generating a fourth motion vector corresponding to a third current block of said current image by searching among said fourth reference samples, said third reference samples and at least a second portion of said first reference samples.

17. (CANCELED)

18. (CANCELED)

19. (CURRENTLY AMENDED) The method according to claim 11, further comprising the steps of:

copying a plurality of third reference samples from said memory to said first circuit; and

generating a third motion vector corresponding to a second current block of said current image by searching among said third reference samples and at least a _first_ portion of said first reference samples.

20. (CURRENTLY AMENDED) An apparatus comprising:

means for storing a first reference image;

means for (i) copying a plurality of first reference samples of said first reference image from said means for storing, said first reference samples being proximate a first offset from a first corner of said first reference image and (ii) generate a first motion vector corresponding to a first current block of a current image by searching among said first reference samples; and

means for (i) copying a plurality of second reference samples of said first reference image from said means for storing, said second reference samples being proximate a second offset from said first corner of said first reference image, said second offset being different than said first offset and (ii) generating a second motion vector corresponding to said first current block by searching among said second reference samples, wherein (i) said first offset comprises a small offset generated from a still region

of said current image and (ii) said second offset comprises a large offset generated from a moving region of said current image.

21.   (CURRENTLY AMENDED) The apparatus according to claim 1, wherein ~~(i)~~ said first offset comprises a ~~small~~ zero offset generated from ~~a~~ said still region of said current image ~~and (ii) said second offset comprises a large offset generated from a moving region of said current image~~.

22.   (PREVIOUSLY PRESENTED) The apparatus according to claim 1, further comprising a memory sub-system configured to control communication between (i) said memory and said first circuit and (ii) said memory and said second circuit.

23.   (PREVIOUSLY PRESENTED) The method according to claim 11, further comprising the steps of:

copying a plurality of third reference samples of a second reference image from said memory to a third circuit, said third reference samples having a third offset from a second corner of a second reference; and

generating a third motion vector corresponding to said first current block by searching among said third reference samples using said third circuit.

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24. (PREVIOUSLY PRESENTED) The method according to claim 23, wherein (i) said first motion vector comprises a forward prediction and (ii) said third motion vector comprises a backwards prediction.

25. (CURRENTLY AMENDED) The method according to claim 11, wherein ~~(i)~~ said first offset comprises a zero offset generated from ~~a~~ <u>said</u> still region of said current image ~~and (ii) said second offset comprises a non-zero offset generated from a moving region of said current image~~.